1997 Monitoring Program
Environmental Surveillance:

On-site Groundwater

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
State-licensed Disposal Area (SSWMU #11)* **1101a U** **1101b U** **1101c U** **1102a** **1102b** **1103a** **1103b** **1103c** **1104a** **1104b** **1104c** **1105a** **1105b** **1106a U** **1106b U** **1107a** **1108a U** **1109a U** **1109b U** **1110a** **1111a**	Groundwater monitoring points around site super solid waste management units (SSWMUs) Reported in: • SER	Grab liquid	Per NYSERDA	Per NYSERDA	Per NYSERDA
Well Points (Not in a SSWMU) **WP-A** **WP-C** **WP-H**	Well points downgradient of main plant Reported in: • SER • Quarterly groundwater reports	Grab liquid Field Measurement	→ Annual → Each event	→ 1 each well → 2 each	→ Gross alpha/beta, H-3 → pH, conductivity
North Plateau Seeps (Not in a SSWMU) **GSEEP** **SP02** **SP04** **SP05** **SP06** **SP11** **SP12** **SP18** **SP23**	Groundwater seepage points along the northeastern edge of the north plateau Reported in: • Quarterly groundwater reports	Grab liquid	→ Semiannual	→ 2 each seep	→ Gross alpha/beta, H-3 (pH, conductivity, and VOCs at SP12)

NOTE: "U" designates upgradient, "B" designates background and "C" designates crossgradient wells; the remainder are downgradient.
* SSWMU #11 is sampled by NYSERDA under a separate program.

Sampling Rationale

On-site Groundwater	DOE Order 5400.1, IV.9; DOE/EH-0173T, 5.10.1.3; 40 CFR Parts 264 and 265, Subpart F. The on-site WVDP groundwater monitoring program focuses on radiological and chemical surveillance of both active and inactive super solid waste management units (SSWMUs). The program allows for the determination of water quality. In addition, using wells situated hydraulically upgradient (background) and downgradient of SSWMUs allows for both detection of groundwater contamination and evaluation of the effects associated with the individual SSWMUs. Groundwater protection is addressed in the Groundwater Protection Management Program, WVDP-091. Groundwater monitoring is covered in the Groundwater Monitoring Plan, WVDP-239.
SSWMU #11	The state-licensed disposal area (SDA) was operated by NFS as a commercial low-level disposal facility and also received wastes from NFS reprocessing operations.
Well Points	Monitor groundwater of known subsurface contamination in the north plateau area. All well points are downgradient of the main plant.
North Plateau Seeps	Monitor groundwater emanating at the ground surface along the edge of the site's north plateau.

■ Sampling locations are shown on Figure A-3 (p. A-47).

1997 Monitoring Program
Environmental Surveillance:

Off-site Surface Water

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
WFBCTCB Buttermilk Creek, upstream of Cattaraugus Creek confluence at Thomas Corners Road	Restricted surface waters receiving plant effluents Reported in: • MTAR • QEMDR • SER	Timed continuous composite liquid	Weekly	52	pH, conductivity
				Weekly samples composited to 12	Monthly composite for gross alpha/beta, H-3
				Weekly samples composited to 4	Quarterly composite for gamma isotopic and Sr-90
WFFELBR Cattaraugus Creek at Felton Bridge	Unrestricted surface waters receiving plant effluents Reported in: • MTAR • QEMDR • SER	Timed continuous composite liquid	Weekly	52	Gross alpha/beta, H-3, pH
				Weekly samples composited to 12	Flow-weighted monthly composite for gamma isotopic and Sr-90, gross alpha/beta, H-3
WFBCBKG Buttermilk Creek near Fox Valley (background)	Unrestricted surface water background Reported in: • MTAR • QEMDR • SER	Timed continuous composite liquid	Weekly	52	pH, conductivity
				Weekly samples composited to 12	Monthly composite for gross alpha/beta, H-3
				Weekly samples composited to 4	Quarterly composite for gamma isotopic, Sr-90, C-14, I-129, Pu/U isotopic, total U, Am-241, Tc-99
		Grab liquid	Semiannual	2	NPOC, TOX, Ca, Mg, Na, K, Ba, Mn, Fe, Cl, SO_4, NO_3-NO_2-N, F, HCO_3, CO_3
WFBIGBR Cattaraugus Creek at Bigelow Bridge (background)	Unrestricted surface water background Reported in: • MTAR • QEMDR • SER	Grab liquid	Monthly	12	Gross alpha/beta, H-3, Sr-90, and gamma isotopic

Monthly composites at **WFBCTCB, WFBCBKG,** and **WFFELBR** are also sent to NYSDOH.

Sampling Rationale

WFBCTCB DOE/EH-0173T, 5.10.1.1.

Buttermilk Creek is the surface water receiving all WVDP effluents. **WFBCTCB** monitors the potential influence of WVDP drainage into Buttermilk Creek upstream of confluence with Cattaraugus Creek.

WFFELBR DOE/EH-0173T, 5.10.1.1.

Because Buttermilk Creek empties into Cattaraugus Creek, **WFFELBR** monitors the potential influence of WVDP drainage into Cattaraugus Creek directly downstream of the Cattaraugus Creek confluence with Buttermilk Creek.

WFBCBKG DOE/EH-0173T, 5.10.1.1.

Monitors background conditions of Buttermilk Creek upstream of the WVDP. Allows for comparison to downstream conditions.

WFBIGBR DOE/EH-0173T, 5.10.1.1.

Monitors background conditions of Cattaraugus Creek at Bigelow Bridge, upstream of the WVDP. Allows for comparison to downstream conditions.

- Sampling locations are shown on Figure A-4 (p. A-48).

1997 Monitoring Program
Environmental Surveillance:

Off-site Drinking Water

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
WFWEL series wells near WVDP outside WNYNSC perimeter **WFWEL01** 3.0 km WNW **WFWEL02** 1.5 km NW **WFWEL03** 3.5 km NW **WFWEL04** 3.0 km NW **WFWEL05** 2.5 km SW **WFWEL06** (background) 29 km S **WFWEL07** 4.4 km NNE **WFWEL08** 2.5 km ENE **WFWEL09** 3.0 km SE **WFWEL10** 7.0 km N	Drinking water supply; groundwater near facility* Reported in: • MTAR • QEMDR • SER	→ Grab liquid	→ Annual	→ 1 each location	→ Gross alpha/beta, H-3, gamma isotopic, pH, conductivity

* No drinking water wells are located in hydrogeological units affected by site activity.

Sampling Rationale

Off-site Drinking Water **WFWEL** Series	DOE 5400.1, IV.9; DOE/EH-0173T, 5.10.1.2. Eight of the ten listed off-site private residential drinking water wells represent the nearest unrestricted uses of groundwater close to the WVDP. The ninth sample (**WFWEL10**) is from a public water supply from deep wells. The tenth drinking water well, **WFWEL06**, is located 29 kilometers south of the Project and is considered a background drinking water source.

- Sampling locations are shown on Figures A-5 and A-9 (pp. A-49 and A-53).

1997 Monitoring Program
Environmental Surveillance:

Off-site Air

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
AFFXVRD 3.0 km SSE at Fox Valley **AFTCORD** 3.7 km NNW at Thomas Corners Road **AFRT240*** 2.0 km NE on Route 240 **AFSPRVL** 7 km N at Springville **AFWEVAL** 6 km SSE at West Valley **AFNASHV** 37 km W at Village of Nashville, town of Hanover (background) **AFBOEHN** 2.3 km SW on Dutch Hill Road **AFRSPRD** 1.5 km NW on Rock Springs Road **AFGRVAL** 29 km S at Great Valley (background) **AFBLKST** Bulk Storage Warehouse 2.2 km ESE at Buttermilk Road	Particulate air samples around WNYNSC perimeter Reported in: • MTAR • QEMDR • SER	Continuous air particulate filter	→ Weekly	→ 52 each location Weekly filters composited to 4 each location	→ Gross alpha/beta → Quarterly composite for Sr-90, gamma isotopic Total U, U/Pu isotopic, and Am-241 for **AFRSPRD** and **AFGRVAL** only
		Continuous desiccant column for water vapor collection	→ Weekly	→ 52 each location (**AFRSPRD** and **AFGRVAL** only)	→ H-3
		Continuous charcoal cartridge	→ Monthly	→ 12 composited to 4 each location (**AFRSPRD** and **AFGRVAL** only)	→ Quarterly composite for I-129

* Filter from duplicate sampler sent to NYSDOH.

Sampling Rationale

AFFXVRD DOE/EH-0173T, 5.7.4.

AFTCORD

AFRT240 Air samplers put into service by NFS as part of the site's original monitoring program. Perimeter locations chosen to obtain data from places most likely to provide highest concentrations, based on meteorological data.

AFSPRVL DOE/EH-0173T, 5.7.4; DOE/EP-0023, 4.2.3.

Off-site (remote) sampler located on private property in nearby community within 15 kilometers of the site (north).

AFWEVAL DOE/EH-0173T, 5.7.4; DOE/EP-0023, 4.2.3.

Off-site (remote) sampler located on private property in nearby community within 15 kilometers of the site (southeast).

AFNASHV DOE/EH-0173T, 5.7.4; DOE/EP-0023, 4.2.3.

Off-site (remote) sampler considered to be representative of natural background radiation. Located 37 kilometers west of the site (upwind) on privately owned property.

AFBOEHN DOE/EH-0173T, 5.7.4; DOE/EP-0023, 4.2.3.

Perimeter location chosen to obtain data from the place most likely to provide highest elevated release concentrations based on meteorological data. AFBOEHN is located on NYSERDA property at the perimeter.

AFRSPRD DOE/EH-0173T, 5.7.4.

Perimeter location chosen to obtain data from the place most likely to provide highest ground-level release concentrations, based on meteorological data. AFRSPRD is on WVDP property but outside the main plant operations fence line. I-129 and H-3 are sampled here because the sampling trains were easy to incorporate and the location was most likely to receive effluent releases.

AFGRVAL DOE/EH-0173T, 5.7.4; DOE/EP-0023, 4.2.3.

Off-site (remote) sampler considered to be representative of natural background radiation. Located on privately owned property 29 kilometers south of the site (typically upwind). I-129 and H-3 sampled here also.

AFBLKST DOE/EH-0173T, 5.7.4.

Off-site monitoring of bulk storage warehouse, near site perimeter.

- Sampling locations are shown on Figures A-6 and A-9 (pp. A-50 and A-53).

1997 Monitoring Program
Environmental Surveillance:

Fallout, Sediment, and Soil

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
AFDHFOP 2.3 km SW **AFFXFOP** 3.0 km SSE **AFTCFOP** 3.7 km NNW **AF24FOP** 2.0 km NE **ANRGFOP** Rain gauge on-site	Collection of fallout particulates and precipitation around WNYNSC perimeter Reported in: • MTAR • QEMDR • SER	Integrated precipitation	→ Monthly	→ 12 each location	→ Gross alpha/beta, H-3, pH, gamma isotopic
SF Soil Series Surface soil (at each of ten air samplers)	Long-term fallout accumulation Reported in: • MTAR • QEMDR • SER	Surface plug composite soil	→ Annual	→ 1 each location	→ Gross alpha/beta, gamma isotopic, Sr-90, Pu-239/240, Am-241, plus U-isotopic and total U at **SFRSPRD, SFBOEHN,** and **SFGRVAL**
SFCCSED Cattaraugus Creek at Felton Bridge **SFSDSED** Cattaraugus Creek at Springville Dam **SFBISED** Cattaraugus Creek at Bigelow Bridge (background) **SFTCSED** Buttermilk Creek at Thomas Corners Road **SFBCSED** Buttermilk Creek at Fox Valley Road (background)	Deposition in sediment downstream of facility effluents Reported in: • MTAR • QEMDR • SER	Grab stream sediment	→ Annual (Split of **SFSDSED** and **SFBCSED** with **NYSDOH**)	→ 1 each location	→ Gross alpha/beta, gamma isotopic, Sr-90, U/Pu isotopic, total U, Am-241
SN On-site Soil Series: **SNSW74A** (Near WNSW74A) **SNSWAMP** (Near WNSWAMP) **SNSP006** (Near WNSP006)	Reported in: • MTAR • QEMDR • SER	Surface plug or grab	→ Annual	→ 1 each location	→ Gross alpha/beta, gamma isotopic, Sr-90, Pu-239/240, Am-241, U-isotopic, total U, Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn

Sampling Rationale

AFDHFOP **AFFXFOP** **AFTCFOP** **AF24FOP**	DOE/EP-0023, 4.7. Collection of fallout particles and precipitation around the site perimeter at established air sampling locations: AFDHFOP (Dutch Hill at Boehn road), AFFXFOP (Fox Valley Road), AFTCFOP (Thomas Corners), AF24FOP (Route 240). Indicates short-term effects.
ANRGFOP	Collection of fallout particles and precipitation on-site at the rain gauge. Indicates short-term effects.
SF Soil Series	DOE/EH-0173T, 5.9.1. Off-site soils collected at air sampling locations. **SFWEVAL** (West Valley), **SFFXVRD** (Fox Valley Road), **SFSPRVL** (Springville), **SFTCORD** (Thomas Corners), **SFRT240** (Route 240), **SFNASHV** (Nashville), **SFBOEHN** (Boehn Road-Dutch Hill), **SFGRVAL** (Great Valley), **SFRSPRD** (Rock Springs Road), **SFBLKST** (bulk storage warehouse): Collection of long-term fallout data at established air sampler locations via soil sampling.
SFTCSED	DOE/EH-0173T, 5.12.1. Sediment deposition at Thomas Corners in Buttermilk Creek immediately downstream of all facility liquid effluents.
SFBCSED	DOE/EH-0173T, 5.12.1. Sediment deposition in Buttermilk Creek upstream of facility effluents (background).
SFCCSED	DOE/EH-0173T, 5.12.1. Sediment deposition in Cattaraugus Creek at Felton Bridge. Location is first access point to Cattaraugus Creek downstream of the confluence with Buttermilk Creek.
SFSDSED	DOE/EH-0173T, 5.12.1. Sediment deposition in Cattaraugus Creek at Springville Dam. Reservoir provides ideal settling and collection location for sediments downstream of Buttermilk Creek confluence. Located downstream of **SFCCSED**.
SFBISED	DOE/EH-0173T, 5.12.1. Sediment deposition in Cattaraugus Creek at Bigelow Bridge. Location is upstream of the Buttermilk Creek confluence and serves as a Cattaraugus Creek background location.
SN Soil Series	DOE/EH-0173T, 5.9.1. On-site soil. (Samples may be partially composed of sediments.)
SNSW74A	Surface soil near **WNSW74A**. Location to be specifically defined by geographic coordinates. Corresponds to site drainage pattern flow (i.e., most likely area of radiological deposition/accumulation).
SNSWAMP	Surface soil near **WNSWAMP**. Location to be specifically defined by geographic coordinates. Corresponds to site drainage pattern flow (i.e., most likely area of radiological deposition/accumulation).
SNSP006	Surface soil near **WNSP006**. Location to be specifically defined by geographic coordinates. Corresponds to site drainage pattern flow (i.e., most likely area of radiological deposition/accumulation).

■ Sampling locations are shown on Figures A-2, A-4, A-6, and A-9 (pp. A-46, A-48, A-50, and A-53).

1997 Monitoring Program
Environmental Surveillance:

Off-site Biological

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
BFFCATC Fish from Cattaraugus Creek downstream of its confluence with Buttermilk Creek **BFFCTRL** Control sample from nearby stream not affected by the WVDP (7 km or more upstream of site effluent point; background) **BFFCATD** Fish from Cattaraugus Creek downstream of Springville Dam	Fish in waters up- and downstream of facility effluents Reported in: • MTAR • QEMDR • SER	Individual collection, biological	Semiannual (samples at **BFFCATC** and **BFFCTRL** shared with NYSDOH)	→ 20 fish each location	→ Gamma isotopic and Sr-90 in edible portions of each individual fish
			Annual (**BFFCATD** only)	→ 10 fish	→ Gamma isotopic and Sr-90 in edible portions of each individual fish
BFMREED Dairy farm, 3.8 km NNW **BFMCOBO** Dairy farm, 1.9 km WNW **BFMCTLS** Control location 25 km S (background) **BFMCTLN** Control location 30 km N (background) **BFMWIDR** Dairy farm, 3.0 km SE of site **BFMSCHT** Dairy farm 4.8 km S	Milk from animals foraging around facility perimeter and at background sites Reported in: • MTAR • QEMDR • SER	Grab biological	→ Monthly (**BFMREED, BFMCOBO, BFMCTLS, BFMCTLN.** Samples at **BFMREED** and **BFMCOBO** shared with NYSDOH)	→ 12 monthly samples composited to 4 each location	→ Quarterly composite for gamma isotopic, Sr-90, H-3, and I-129
			Annual (**BFMWIDR, BFMSCHT**)	→ 1 each location	→ Gamma isotopic, Sr-90, H-3, and I-129

Sampling Rationale

BFFCATC **BFFCATD**	DOE/EH-0173T, 5.11.1.1. Radioactivity may enter a food chain in which fish are a major component and are consumed by the local population.
BFFCTRL	Control fish sample to provide background data for comparison with data from fish caught downstream of facility effluents.
BFMREED **BFMCOBO** **BFMWIDR** **BFMSCHT**	DOE/EH-0173T, 5.8.2.1. Milk from animals foraging around facility perimeter. Milk is consumed by all age groups and is frequently the most important food that could contribute to the radiation dose. Dairy animals pastured near the site and at two background locations allow adequate monitoring.
BFMCTLS **BFMCTLN**	Control milk samples collected far from site to provide background data for comparison with data from near-site milk.

- Sampling locations are shown on Figures A-5 and A-9 (pp. A-49 and A-53).

1997 Monitoring Program
Environmental Surveillance:

Off-site Biological

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
BFVNEAR* Nearby locations **BFVCTRL*** Remote locations (16 km or more from facility; background) **BFHNEAR** Beef cattle/milk cow forage from near-site location	Fruit and vegetables grown near facility perimeter, downwind if possible Reported in: • MTAR • QEMDR • SER	Grab biological (fruits and vegetables)	Annual, at harvest (**BFVNEAR** and **BFVCTRL**)	3 each (split with NYSDOH)	Gamma isotopic and Sr-90 analysis of edible portions, H-3 in free moisture
BFHCTLS or **BFHCTLN** Beef cattle/milk cow forage from control location south or north (background)		Grab biological	Annual (**BFHNEAR**, **BFHCTLS**, or **BFHCTLN**)	1 each location	Gamma isotopic, Sr-90
BFBNEAR Beef animal from nearby farm in downwind direction **BFBCTRL** Beef animal from control location 16 km or more from facility (background)	Meat (beef foraging near facility perimeter, downwind if possible) Reported in: • MTAR • QEMDR • SER	Grab biological	Semiannual	2 each location	Gamma isotopic and Sr-90 analysis of meat, H-3 in free moisture
BFDNEAR Deer in vicinity of the site **BFDCTRL** Control deer 16 km or more from facility (background)	Meat (deer foraging near facility perimeter) Reported in: • MTAR • QEMDR • SER	Individual collection biological	Annual, during hunting season (**BFDNEAR** sample split with NYSDOH)	3	Gamma isotopic and Sr-90 analysis of meat, H-3 in free moisture
			During year as available (**BFDCTRL** sample split with NYSDOH)	3	Gamma isotopic and Sr-90 analysis of meat, H-3 in free moisture

* Corn, apple, and bean samples are identified specifically as follows: corn = BFVNEAC and BFVCTRC; apples = BFVNEAA and BFCTRA; beans = BFVNEAB and BFVCTRB.

Sampling Rationale

BFVNEAR DOE/EH-0173T, 5.8.2.2.

Fruits and vegetables (corn, apples, and beans or leafy vegetables, if available) collected from areas near the site. These samples are collected, if possible, from areas near the site predicted to have worst-case downwind concentrations of radionuclides in air and soil. Sample analysis reflects steady state/chronic uptake or contamination of foodstuffs as a result of site activities. Possible pathway to humans or indirectly through animals.

BFVCTRL DOE/EH-0173T, 5.8.2.2.

Fruits and vegetables collected from area remote from the site. Background fruits and vegetables collected for comparison with near-site samples. Collected in area(s) of no possible site impact.

BFHNEAR DOE/EH-0173T, 5.8.2.2.

Hay collected from areas near the site. Same as for near-site fruits and vegetables (**BFVNEAR**). Indirect pathway to humans through animals. Collected from same location as beef or milk sample.

BFHCTLS DOE/EH-0173T, 5.8.2.2.
BFHCTLN

Hay collected from areas remote from the site. Background hay collected for comparison with near-site samples. Collected in area(s) of no possible site impact.

BFBNEAR DOE/EH-0173T, 5.8.2.3.

Beef collected from animals raised near the site and foraging downwind in areas of maximum probable site impact. Following the rationale for vegetable matter collected near site (**BFVNEAR** and **BFHNEAR**), edible flesh portion of beef animals is analyzed to determine possible radionuclide content passable directly to humans.

BFBCTRL DOE/EH-0173T, 5.8.2.3.

Beef collected from animals raised far from the site. Background beef collected for comparison with near-site samples. Collected in area(s) of no possible site impact.

BFDNEAR DOE/EH-0173T, 5.8.3.

Venison from deer herd found living near the site. Same as for beef **(BFBNEAR).**

BFDCTRL DOE/EH-0173T, 5.8.3.

Venison from deer herd living far from the site. Background deer meat collected for comparison with near-site samples. Collected in area(s) of no possible site impact.

- Sampling locations are shown on Figures A-5 and A-9 (pp. A-49 and A-53).

1997 Monitoring Program
Environmental Surveillance:

Off-site Direct Radiation

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
DFTLD Series Thermoluminescent Dosimetry (TLD) Off-site: **#1-16** At each of 16 compass sectors at nearest accessible perimeter point **#17** "5 Points" landfill, 19 km SW (background) **#20** 1,500 m NW (downwind receptor) **#21** Springville 7 km N **#22** West Valley 6 km SSE **#23** Great Valley 29 km S (background) **#37** Nashville 37 km NW (background) **#41** Sardinia-Savage Road 24 km NE (background)	Direct radiation around facility Reported in: • QEMDR • SER	Integrating LiF TLD	Quarterly	5 TLDs at each of 23 locations collected 4 times per year	Quarterly gamma radiation exposure

Sampling Rationale

DOSIMETRY Off-site	DOE/EH-0173T, 5.5; DOE/EP-0023, 4.6.3. TLDs offer continuous integrated environmental gamma-ray monitoring and have been deployed systematically about the site. Off-site TLDs are used to verify that site activities have not adversely affected the surrounding environs. In addition to general NRC crosschecks at selected sites, a biennial HPIC gamma radiation measurement is completed at all TLD locations.

- Sampling locations are shown on Figures A-7 and A-9 (pp. A-51 and A-53).

1997 Monitoring Program
Environmental Surveillance:

On-site Direct Radiation

Sample Location Code	Monitoring/Reporting Requirements	Sampling Type/Medium	Collection Frequency	Total Annual Sample Collections	Analyses Performed/ Composite Frequency
DNTLD Series Thermoluminescent Dosimetry (TLD) On-site: **#18, #19, #33** At three corners of SDA **#24, #26-32, #34** (9) at security fence around site **#35, #36, #38-40** (5) On-site near operational areas **#25** Rock Springs Road 500 m NNW of plant **#42** SDA T-1 Building **#43** SDA West Perimeter Fence	Direct radiation on facility grounds Reported in: • QEMDR • SER	Integrating LiF TLD	→ Quarterly	→ 5 TLDs at each of 20 sites collected 4 times per year	→ Quarterly gamma radiation exposure

Sampling Rationale

DOSIMETRY On-site	DOE/EH-0173T, 5.4 and 5.5. On-site TLDs monitor waste management units and verify that the potential dose rate to the general public (i.e., at Rock Springs Road) is below 100 mrem/annum (1 mSv/annum) from site activities. In addition to general NRC crosschecks at selected sites, a biennial HPIC gamma radiation measurement is completed at all locations. Potential TLD sampling locations are continually evaluated with respect to site activities.

- Sampling locations are shown on Figure A-8 (p. A-52).

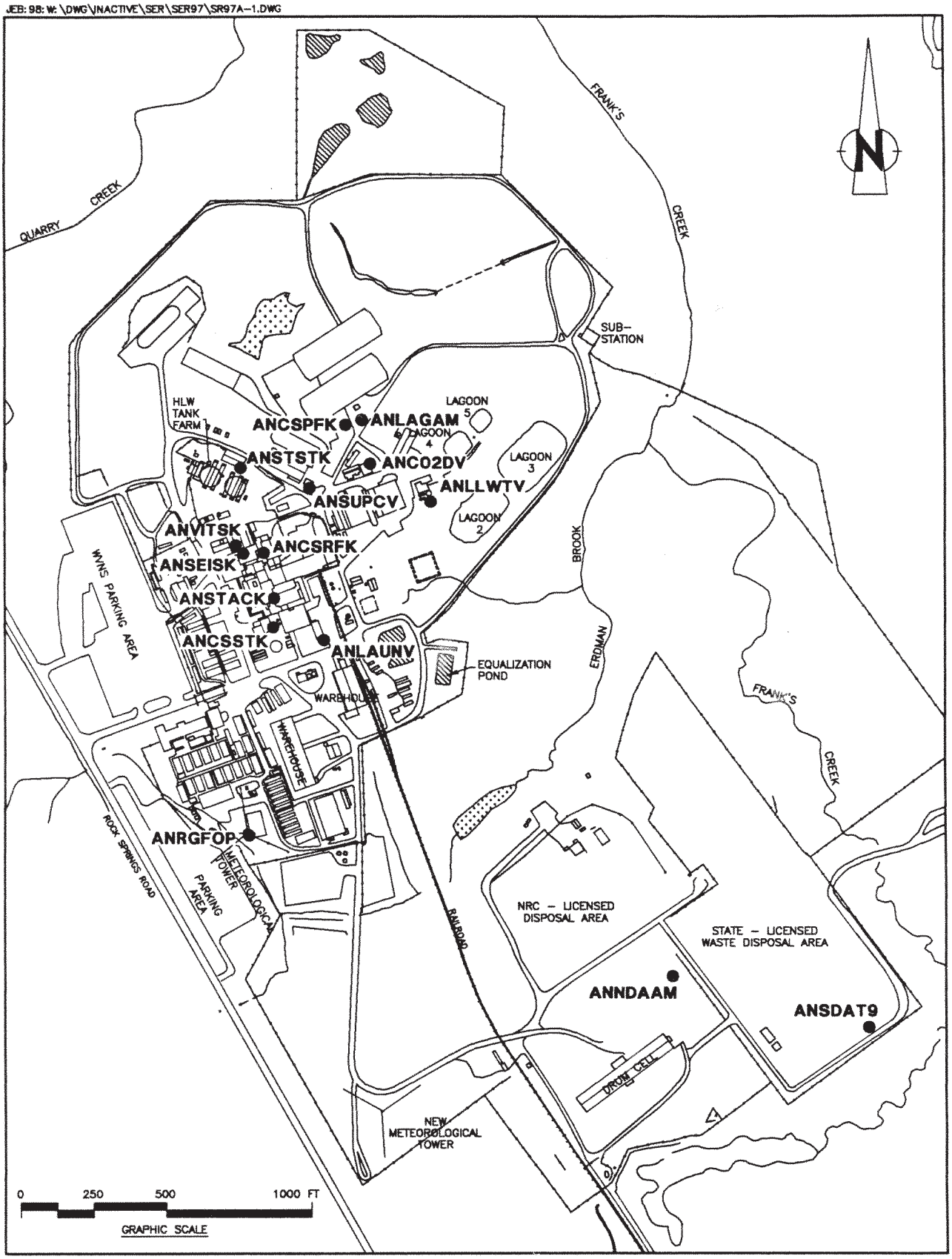


Figure A-1. On-site Air Monitoring and Sampling Points.

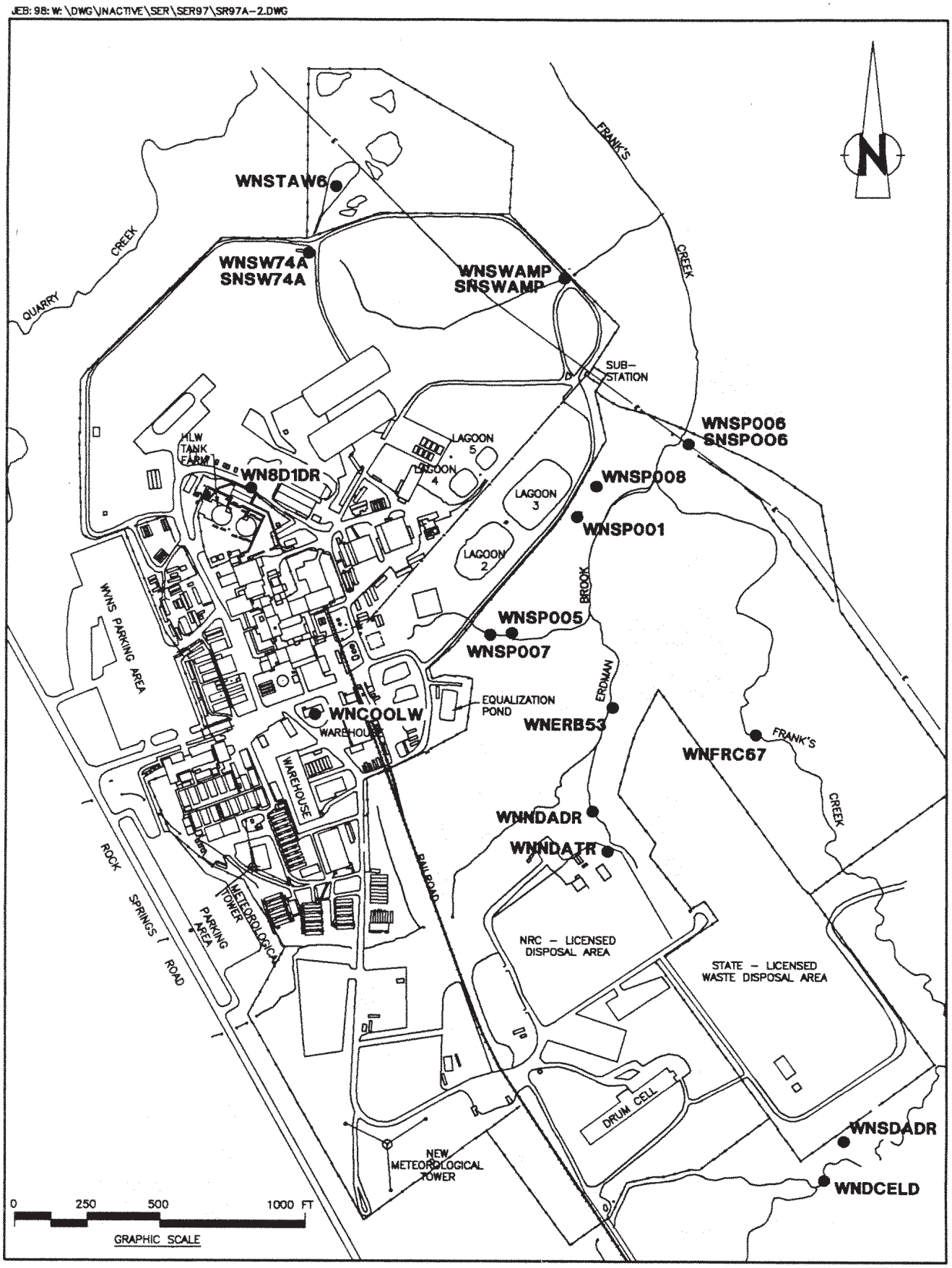


Figure A-2. On-site Surface Water and Soil Sampling Locations.

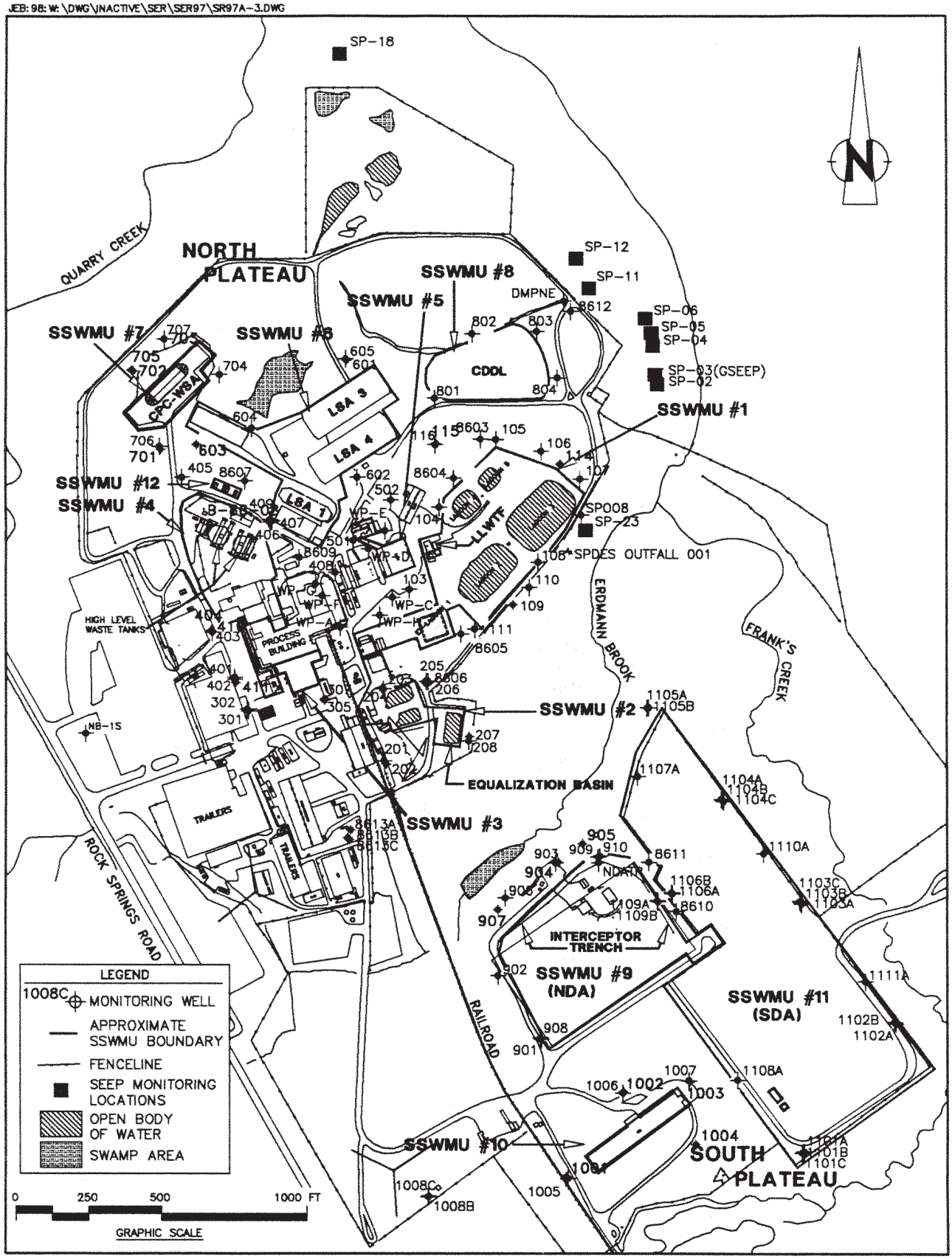


Figure A-3. On-Site Groundwater Monitoring Network (Includes wells not actively monitored following May 1995 but used for water level measurements).

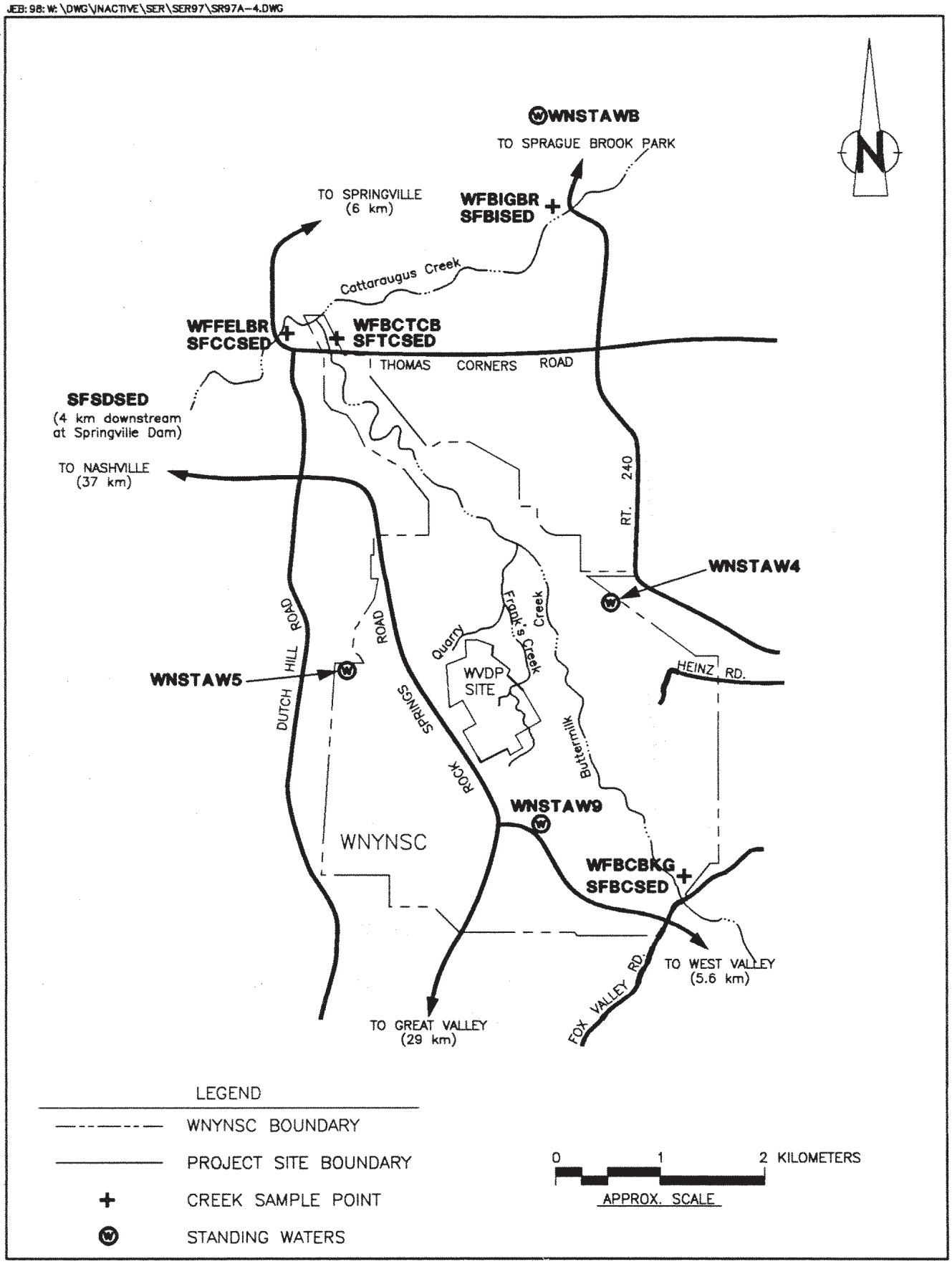


Figure A-4. Off-site Surface Water and Sediment Sampling Locations.

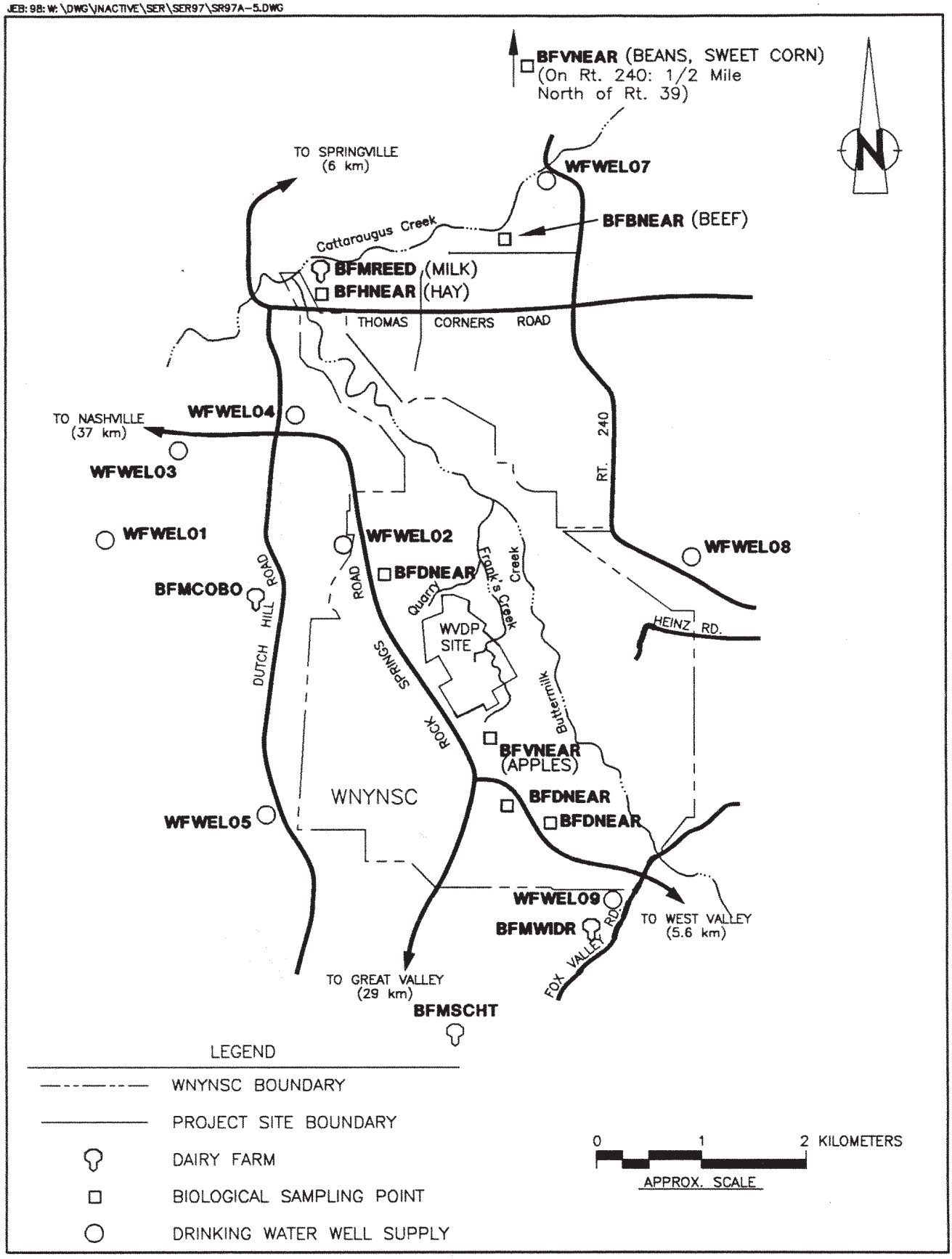


Figure A–5. Near–site Drinking Water and Biological Sample Points.

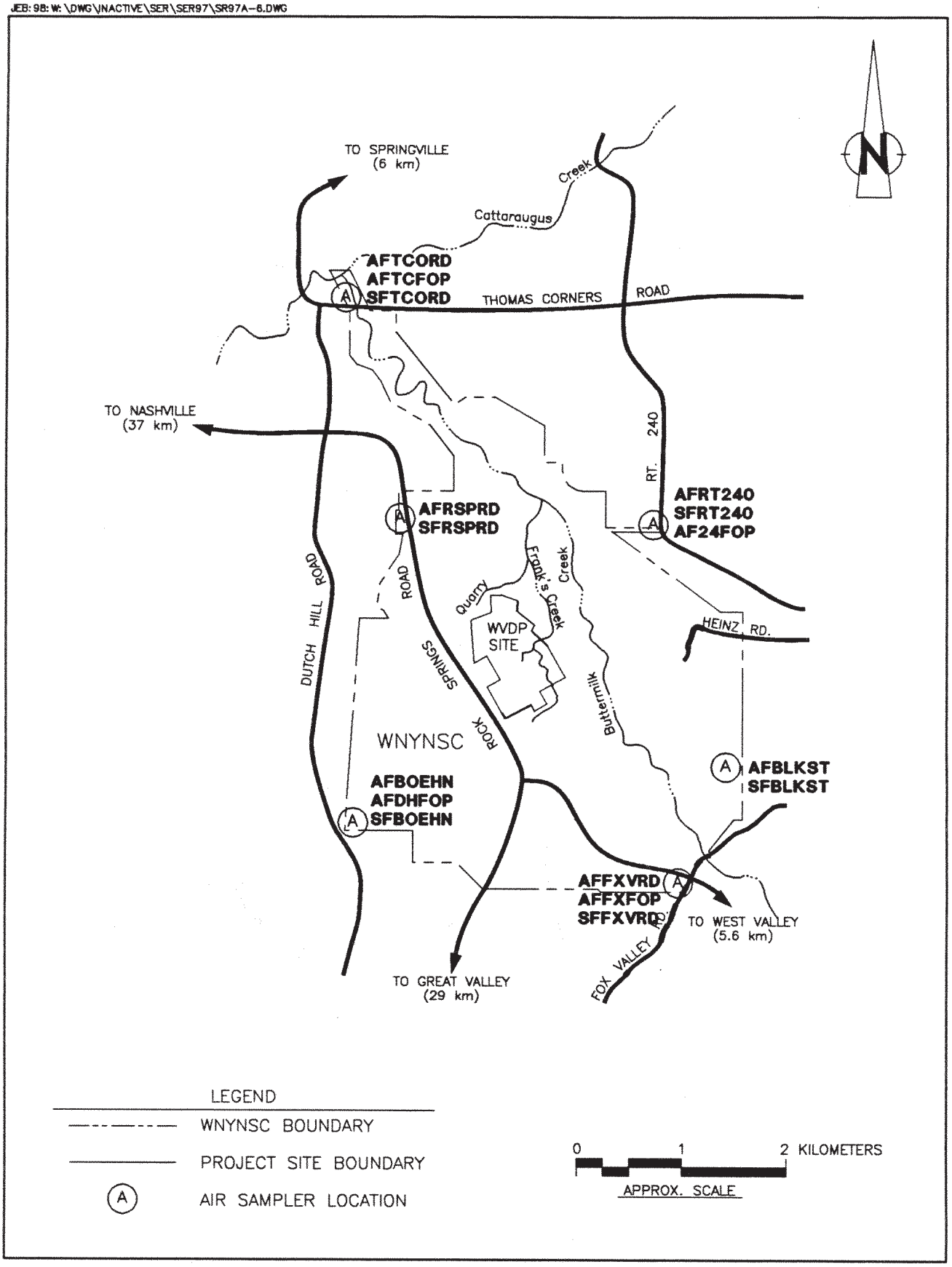


Figure A–6. Perimeter Air, Soil, and Fallout Sampling Point Locations.

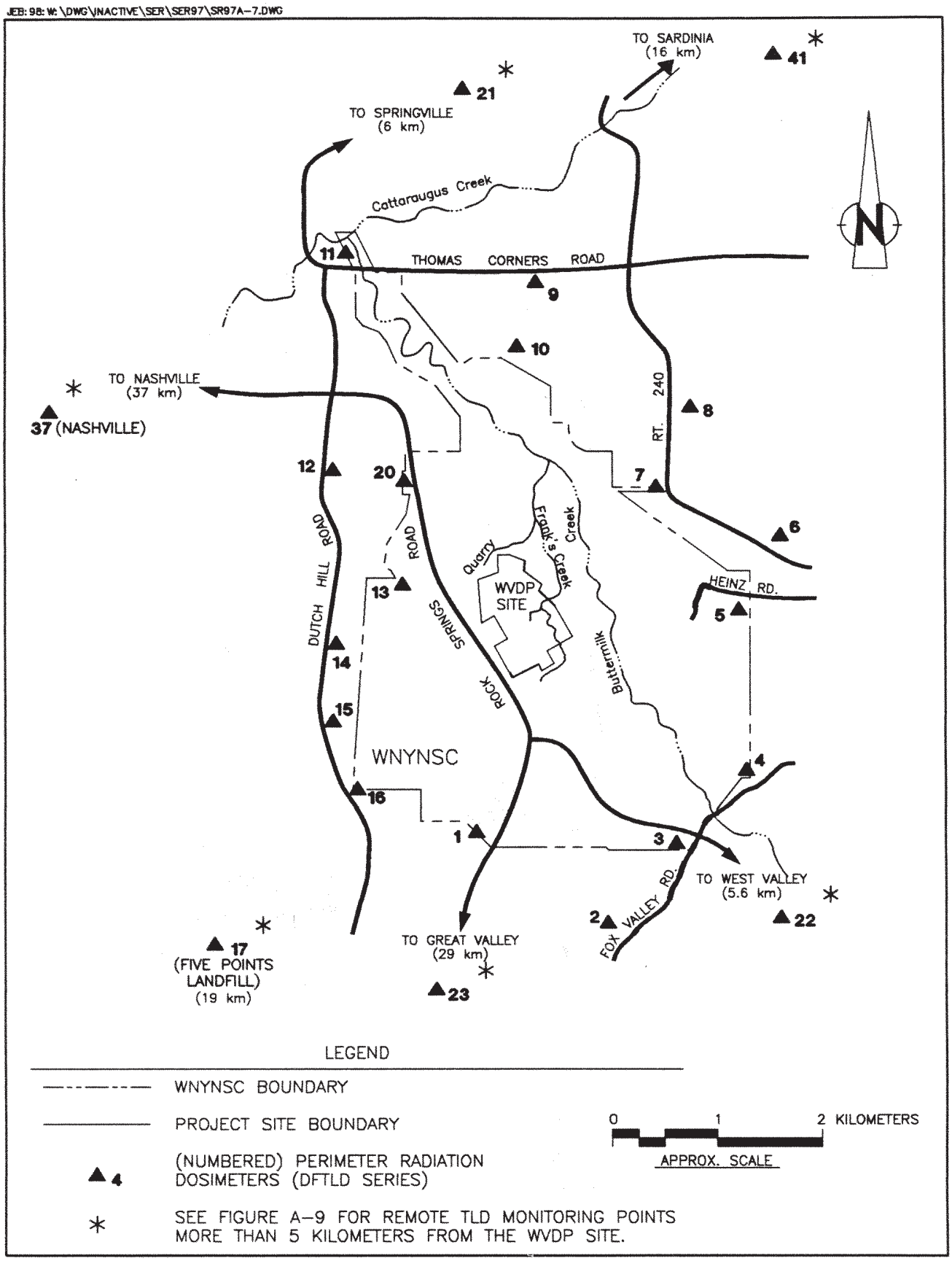


Figure A-7. Off-site Thermoluminescent Dosimeter (TLD) Locations.

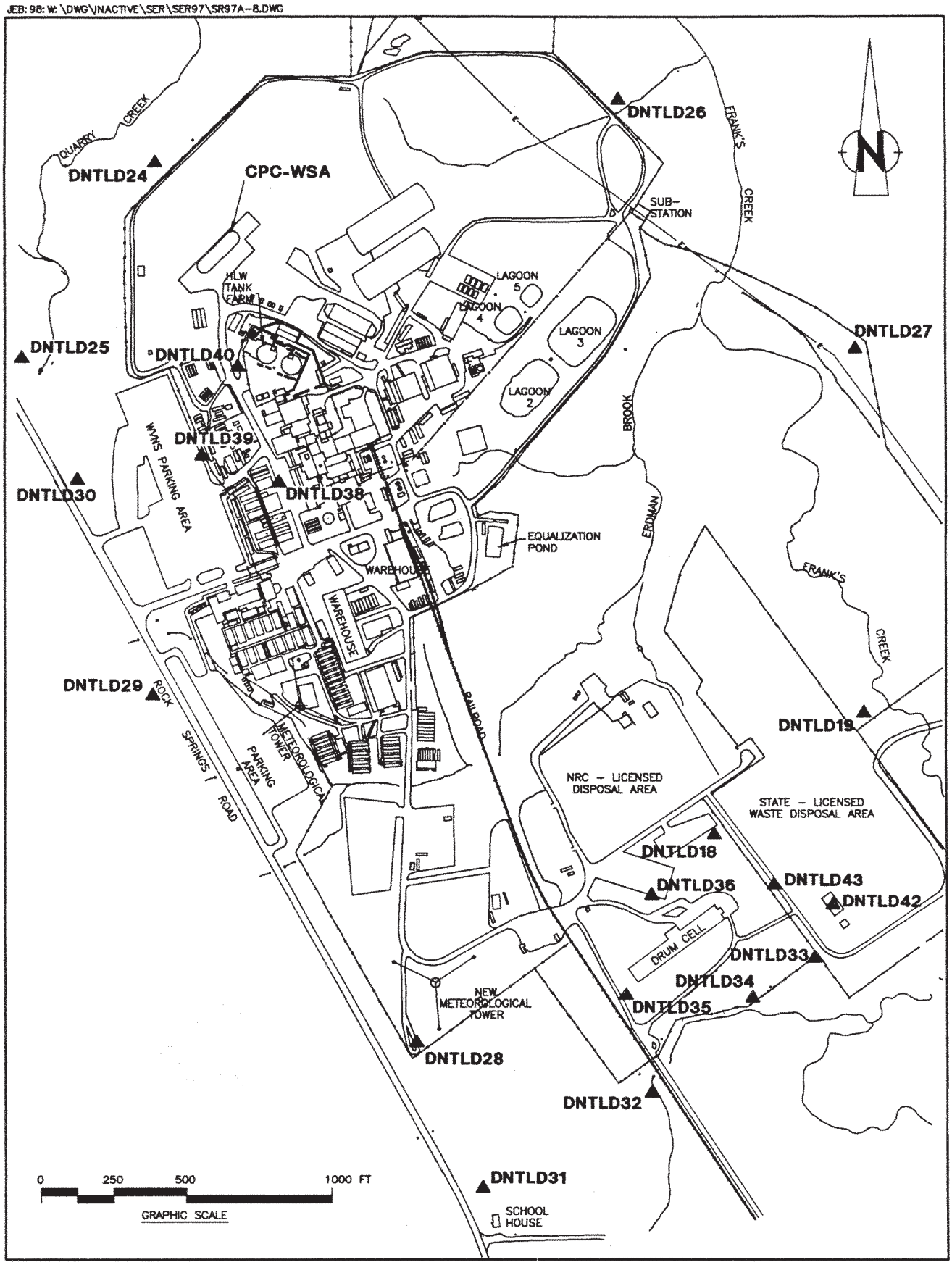
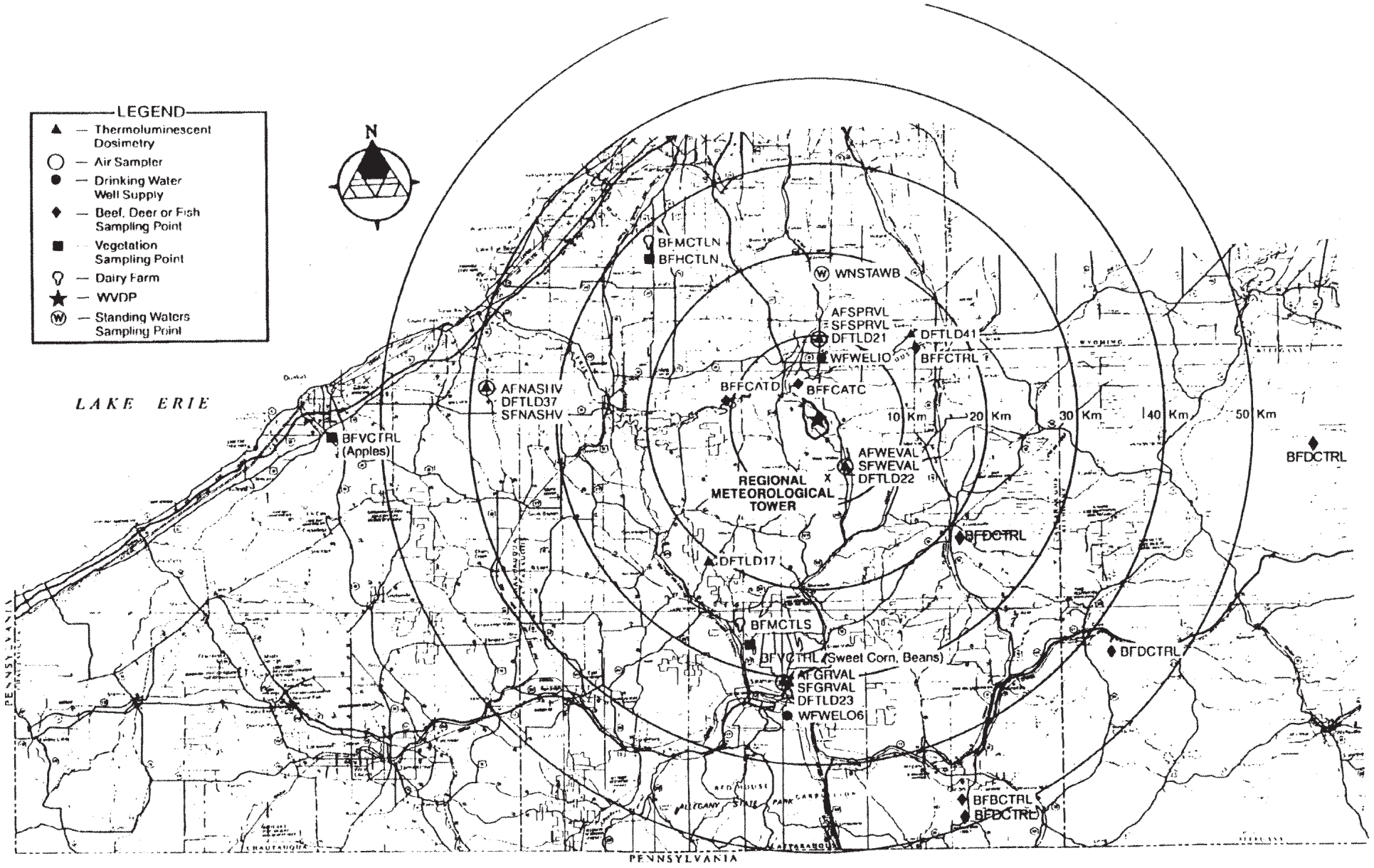


Figure A-8. On-site Thermoluminescent Dosimeters (TLD) Locations.



REF: NYSDOT, New York State Map — West Sheet, 1:250,000, Revised 1982

Figure A-9. Environmental sample points more than 5 kilometers from the WVDP site.